APPEAL

BRIEF - PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicants:	C.E. Miller et al.	Attorney Docket No. WEYE120656/22193
Application No:	10/603,981	Art Unit: 3761/ Confirmation No.: 3856
Filed:	June 24, 2003	Examiner: C.L. Anderson
Title:	ABSORBENT STRUCTURE FOR ABSORBING BLOOD	

APPELLANTS' APPEAL BRIEF

TO THE COMMISSIONER FOR PATENTS:

This Appeal Brief is filed in response to the Notification of Non-Compliant Appeal Brief mailed March 23, 2007. A Notice of Appeal from the Examiner to the Board of Patent Appeals and Interferences ("the Board") was filed in the present application on September 14, 2006, appealing the decision of the Primary Examiner dated May 19, 2006, finally rejecting Claims 1-25 and 27.

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I. REAL PARTY IN INTEREST

The real party in interest is Weyerhaeuser Company, a corporation having a principal place of business at 33663 Weyerhaeuser Way South, Patent Department, CH 1J27, Federal Way, Washington 98003. Assignment of the present patent application and invention from the parties named in the above captioned application to the real party in interest, was recorded at Reel 014240, Frame 0088 on June 24, 2003.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF CLAIMS

Claims 1-25 and 27 are pending in the application. The rejections of Claims 1-25 and 27 are being appealed. A copy of the claims on appeal, as amended during prosecution, is included in the Claims Appendix.

IV. STATUS OF AMENDMENTS

On February 26, 2006, appellants filed an amendment and response, in which Claims 1 and 14 were amended. All amendments to the claims have been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Prior to discussing the claimed subject matter, a brief background is set forth to help the Board better appreciate the subject matter of the claims discussed herein. The following background discussion is not intended to define the scope or provide interpretation of any of the claimed subject matter. References to exemplary embodiments in the specification (including page and line numbers) and the drawings have been included in this summary for the independent claims, Claims 1 and 14.

A. Background

In the past, attempts have been made to design feminine hygiene products having improved absorbent utilization and controlled staining and flow characteristics. Feminine hygiene products are traditionally made from cellulosic material. While these materials provide absorbency when used without modification, they suffer from certain disadvantages. For example, menstrual fluid is not immobilized in wood pulp fluff or other conventional cellulosic absorbent materials. Accordingly, when pressure is exerted which compresses these absorbents, the fluid is liberated and can either be pushed upward through a fluid permeable covering to contact the wearer or can run outward along the top surface of the absorbent and may promote side staining.

Attempts have been made to at least partially immobilize menstrual fluid and increase the absorptive capacity of feminine hygiene products by the inclusion of superabsorbent materials. The superabsorbent material is generally in the form of a crosslinked three-dimensional structure, which is designed to allow for the penetration of an aqueous fluid. However, the suspended plasma proteins and blood cells in menstrual fluid are too large to penetrate into the superabsorbent material and tend to surround the superabsorbent material, thereby adversely affecting its ability to absorb the liquid fraction of the menstrual fluid.

The interaction of blood with superabsorbent material is further complicated in that the blood cells and plasma proteins present in menstrual fluid have positively charged surfaces, while the superabsorbent material has a negatively charged surface. Thus, by virtue of electrostatic attractive forces, the superabsorbent material tends to bind a small portion of the solids fraction of the menstrual fluid and become impervious to liquid penetration. Thus, a balancing equilibrium is determined in any particular feminine hygiene product by the relative magnitude of the affinities of the superabsorbent materials and the blood solids for the aqueous portion of the blood as well as the relative absolute amounts of each component.

While superabsorbent material initially absorbs the aqueous portion of blood containing fluids with extreme rapidity, when the protein fraction of the blood surrounds the individual superabsorbent particles as described above, the absorption of the fluid as a whole is stopped before any significant amount of the fluid is contained within the superabsorbent particles.

Performance characteristics of feminine hygiene products, which ultimately affect user acceptance, include the rate at which the absorbent structure absorbs the menstrual fluid. Absorbent structures that absorb the menstrual fluid more quickly are generally considered more desirable than those that absorb the menstrual fluid at a slower rate. Another factor considered in the performance of a feminine hygiene product is its capacity to absorb menstrual fluid. Generally, larger capacities are more desirable because they translate into longer wearing times or a diminished probability of leakage. Absorbency under load (AUL) is another important performance criteria. Absorbency under load is an indicator of the ability of a feminine hygiene product to retain absorbed menstrual fluid when pressure is applied to the product. Feminine hygiene products, which have a higher absorbency under load, are less likely to leak when compressed as compared to feminine hygiene products that have lower absorbency under load characteristics.

B. Summary of the Claimed Subject Matter

Claim 1 generally recites an absorbent structure for use in an article for absorbing blood. The absorbent structure includes fibers formed into a first web (10), the first web having a first surface (12 in FIGURE 1 or 18 in FIGURE 2) and a second surface (14 in FIGURE 1 or 16 in FIGURE 2) spaced from the first surface. The absorbent structure further includes blood absorbent enhancing agent (11) within the first web. The blood absorbent enhancing agent (11) is present in a first amount adjacent the first surface (12 in FIGURE 1 or 18 in FIGURE 2) and present in a second amount adjacent the second surface (14 in FIGURE 1 or 16 in FIGURE 2), the first amount being unequal to the second amount. See, e.g., page 4, lines 6-13, and FIGURES 1 and 2.

Claims 2-13 depend from Claim 1, and are directed to further limitations of the absorbent structure described above with reference to Claim 1. Specifically, Claim 2 depends from Claim 1 and recites the total amount of the blood absorbent enhancing agent within the web ranges from about 1% to about 40% based on the weight of the fibers. Claim 3 depends from Claim 1 and recites the blood absorbent enhancing agent is lactic acid. Claim 4 depends from Claim 1 and recites the blood absorbent enhancing agent comprises a mixture of lactic acid and sodium lactate. Claim 5 depends from Claim 1 and recites the blood absorbent enhancing agent is sodium lactate. Claim 6 depends from Claim 3 and recites the total amount of lactic acid within the web ranges from about 1% to about 40% based on the weight of the fibers. Claim 7 depends from Claim 1 and recites that the absorbent structure of Claim 1 further comprises a superabsorbent material. Claim 8 depends from Claim 1 and recites the fibers are cellulose fibers. Claim 9 depends from Claim 1 and recites that the absorbent structure of Claim 1 further comprises a second web of fibers. Claim 10 depends from Claim 5 and recites the fibers of the second web comprise cellulose fibers. Claim 11 depends from Claim 10 and recites the second

web is compressed to increase its density. Claim 12 depends from Claim 11 and recites the first web is less dense than the second web. Claim 13 depends from Claim 10 and recites the second web includes superabsorbent material.

Claim 14 generally recites an absorbent structure for use in an article for absorbing blood. The absorbent structure includes a first web (20) comprising fibers that are bonded together, the first web having a first density. The absorbent structure further includes a second web (10) comprising fibers, wherein the second web (10) has a first surface (12 in FIGURE 1 or 18 in FIGURE 2) and a second surface (14 in FIGURE 1 or 16 in FIGURE 2) spaced from the first surface. A blood absorbent enhancing agent (11) is present in a first amount adjacent the first surface (12 in FIGURE 1 or 18 in FIGURE 2) and present in a second amount adjacent the second surface (14 in FIGURE 1 or 16 in FIGURE 2), the first amount being unequal to the second amount. See, e.g., page 4, lines 6-13; page 8, line 24 to page 9, line 2; and FIGURES 1-3. In accordance with another embodiment, see, e.g., page 9, lines 2-19, and FIGURE 4 including reference numerals 30, 40, and 50 for the webs.

Claims 15-25 and 27 depend from Claim 14, and are directed to further limitations of the absorbent structure described above with reference to Claim 14. Specifically, Claim 15 depends from Claim 14 and recites the blood absorbent enhancing agent is lactic acid. Claim 16 depends from Claim 14 and recites the blood absorbent enhancing agent comprises a mixture of lactic acid and sodium lactate. Claim 17 depends from Claim 14 and recites the blood absorbent enhancing agent is sodium lactate. Claim 18 depends from Claim 14 and recites the first web includes wet strength resins. Claim 19 depends from Claim 14 and recites the first web includes thermobondable fibers. Claim 20 depends from Claim 14 and recites the first web has a density ranging from about 0.03 to about 0.2 g/cm^3. Claim 21 depends from Claim 20 and recites the first web has a density ranging from about 0.03 to about 0.08 g/cm^3. Claim 22 depends from

Claim 14 and recites the second web has been compressed to increase its density to a second density greater than the first density. Claim 23 depends from Claim 14 and recites the first web comprises cellulose fibers. Claim 24 depends from Claim 14 and recites the second web comprises cellulose fibers. Claim 25 depends from Claim 14 and recites the second web includes a superabsorbent material.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether Claims 1-3, 6-9, 14, 15, 24, and 25 are unpatentable under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,762,339, issued to Klun et al. (hereinafter "Klun"), in view of U.S. Patent No. 6,261,679, issued to Chen et al. (hereinafter "Chen").

B. Whether dependent Claims 4, 5, 16, and 17 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Klun in view of Chen, and further in view of U.S. Patent No. 6,013,252 issued to Terao et al. (hereinafter "Terao").

C. Whether dependent Claims 10-13, 18-23, and 27 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Klun in view of Chen, and further in view of U.S. Patent Application Publication No. 2003/0236511 A1, applied for by Jones et al. (hereinafter "Jones.").

VII. ARGUMENT

As discussed in greater detail below, the claims on appeal are patentably distinguishable over the teachings of the above-cited references. The claims are directed to absorbent structures for use in articles for absorbing blood. The absorbent structures include, among other features, a blood absorbent enhancing agent within a web comprising fibers, the blood absorbent enhancing agent present in a first amount adjacent the first surface of the web and present in a second amount adjacent the second surface of the web.

As noted above, the Examiner rejected Claims 1-3, 6-9, 14, 15, 24, and 25 as being obvious over Klun in view of Chen, Claims 4, 5, 16, and 17 as being obvious over Klun in view of Chen, and further in view of Terao, and Claims 10-13, 18-23, and 27 as being obvious over Klun in view of Chen, and further in view of Jones. Applicants disagree because there is no motivation to combine the cited references; and even if there was, the cited references still fail to teach or suggest all of the limitations of the claims on appeal. A detailed discussion of the claims on appeal, the Examiner's rejections, the cited references, and appellants' arguments for patentability follows.

A. Rejection of Claims 1-3, 6-9, 14, 15, 24, and 25 Under 35 U.S.C. § 103(a)

Claims 1-3, 6-9, 14, 15, 24, and 25 stand rejected under 35 U.S.C. § 103(a) as purportedly being obvious over U.S. Patent No. 6,762,339, issued to Klun et al. (hereinafter "Klun"), in view of U.S. Patent No. 6,261,679, issued to Chen et al. (hereinafter "Chen"). As discussed in detail below, the claims on appeal are nonobvious over Klun in view of Chen.

The claims on appeal are nonobvious over Klun and Chen, either alone or in combination, because there is no suggestion or motivation, either in the cited references or in the knowledge of one skilled in the art, to combine the reference teachings. Assuming *arguendo* that there is a

suggestion or motivation to combine the reference teachings, the cited prior art references would still fail to teach or suggest all of the claim limitations of the claims on appeal.

1. Claims on Appeal

Claims 1 and 14 are the independent claims on appeal, from which the other claims on appeal depend. Therefore, all of the claims on appeal recite "blood absorbent enhancing agent present in a first amount adjacent the first surface [of a web] and present in a second amount adjacent the second surface [of the web], the first amount being unequal to the second amount."

2. Examiner's Arguments

The Examiner argues that Klun teaches all aspects of the claims on appeal, with the exception of the blood absorbent enhancing agent being present in a first amount adjacent the first surface and a second amount adjacent the second surface. Specifically, the Examiner states the following:

> Klun discloses all aspects of the claimed invention with the exception of the blood absorbent enhancing agent being present in a first amount adjacent the first surface and a second amount adjacent the second surface. Klun discloses an absorbent structure 10, as shown in figure 1, comprising a first web 11 having a first surface 12 and a second surface 13. The first web 11 comprises fibers, as disclosed in column 7, lines 62-66. A blood enhancing agent is disposed within the first web 11 by coating the first surface, as disclosed in column 26, line 50, to column 27, line 3.

The Examiner cites the Chen reference as teaching the application of an antimicrobial agent in an absorbent structure in a gradient. Specifically, the Examiner states the following:

> Chen teaches the application of an antimicrobial agent in an absorbent structure, as disclosed in column 2, line 43, to column 3, line 17. The antimicrobial agent is present in the absorbent structure in a gradient, as disclosed in column 15, lines 23-45, which would result in a first amount of the agent adjacent a first surface of the structure and a second amount of the agent adjacent the second surface of the structure.

The Examiner then concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the antimicrobial agent in the absorbent structure of Klun in a gradient, as taught by Chen, to provide a greater antimicrobial activity to one surface. Appellants disagree for the following reasons.

3. Summary of the Cited References, Klun and Chen

For a better appreciation of the arguments detailed below, appellants provide a brief summary of the cited references.

Klun generally describes hydrophilic polypropylene fibers having antimicrobial activity. Referring to FIGURE 1, an absorbent device 10 having an absorbent layer 11 is comprised of one or more layers of non-woven or woven fabrics, webs, or fiber batts, which may include these hydrophilic polypropylene fibers, as well as other commonly used hydrophilic fillers (see Klun, Col. 7, line 62, to Col. 8, line 2; Col. 6, lines 25-30).

According to Klun, a liquid composition comprising at least one antimicrobial enhancer material and optionally a liquid vehicle can be applied to the exterior surface of the fibers, non-woven or woven fabrics, webs, or fiber batts (see Klun, Col. 7, lines 18-24). Suitable antimicrobial enhancer materials described in Klun include lactic acid, tartaric acid, adipic acid, succinic acid, citric acid, ascorbic acid, malic acid, mandelic acid, acetic acid, sorbic acid, benzoic acid, salicylic acid, sodium acid pyrophosphate, acidic sodium hexametaphosphate, and salts thereof (see Klun, Col. 7, lines 37-44). Klun does not teach or suggest antimicrobial enhancer materials present in a first amount adjacent a first surface of a web of fibers and a second amount adjacent a second surface of a web of fibers.

Chen generally describes a method of producing an open low-density absorbent fibrous structure that has similar attributes to an open-celled foam. At Col. 3, lines 6-17, Chen describes that the absorbent fibrous structure can be combined with additives, such as antimicrobial agents.

Referring to Col. 15, lines 23-43, Chen mentions that there may be a gradient in the material properties of the absorbent fibrous structure:

> The absorbent fibrous structure can have gradients in material properties extending in the thickness direction or in directions in the place of the absorbent fibrous structure. Gradients or variations in basis weight and thickness can readily be provided, but other material properties such as fiber composition, pore size, wettability, and the like can have gradients as well.... Articles may be provided with gradients in hydrophilicity as well, with more hydrophilic binder material and fibers in one region (e.g., a top surface) than elsewhere (e.g., a back surface).

Chen does not teach or suggest the addition of a blood absorbent enhancing agent to its absorbent fibrous structure, much less a gradient in a blood absorbent enhancing agent.

4. Law on Obviousness

As is well known, to establish a *prima facia* case of obviousness, the cited prior art references must teach or suggest all of the claim limitations; there must be some suggestion or motivation, either in the references or in the knowledge of one skilled in the art, to modify a reference or combine the reference teachings; and there must be a reasonable expectation of success. MPEP § 2143. The Board must consider the motivation-to-combine requirement to prevent proscribed hindsight reasoning when determining obviousness. *See, e.g., Alza Corp. v. Mylan Laboratories, Inc.* 464 F.3d 1286, 1290 (Fed. Cir. 2006) (citing *In re Kahn*, 441 F.3d 977, 985 (Fed. Cir. 2006) and *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1321-24 (Fed. Cir. 2005)).

5. There Is No Suggestion or Motivation to Combine Klun and Chen

The claims on appeal are nonobvious over Klun and Chen, either alone or in combination, because there is no suggestion or motivation, either in the references or in the knowledge of one skilled in the art, to combine the reference teachings. In that regard, neither Klun nor Chen contemplates the complexities of using blood absorbent enhancing agents to effectively absorb

fluids containing aqueous components as well as blood components. Without any suggestion or motivation to combine the reference teachings, the Examiner has used proscribed hindsight reasoning to arrive at the combination of references used in the Examiner's obviousness rejections.

Anti-hindsight jurisprudence rests on the premise that the legal determination of obviousness should be based on evidence rather than on mere speculation or conjecture. *Alza*, 464 F.3d at 1290. Specifically, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *Id.* at 1290-91 (citing *Kahn*, 441 F.3d at 987-88). Therefore, the Board must ask "whether a person of ordinary skill in the art, possessed with the understanding and knowledge reflected in the prior art, and motivated by the general problem facing the inventor, would have been led to make the combination recited in the claims." *Id.* at 1290 (quoting *Kahn*, 441 F.3d at 985, and *Cross Med. Prods.*, 424 F.3d at 1321-24).

In the case at hand, a person of ordinary skill in the art, possessed with the understanding and knowledge reflected in the prior art, and motivated by the general problem facing the inventors, would not have been led to make the combination recited in the claims. In that regard, the inventors of the present application invented an absorbent structure that effectively absorbs fluids, such as menstrual fluids, which include aqueous components as well as suspended solids in the blood (blood cells and plasma proteins). As described in the disclosure at page 5, line 28 to page 6, line 7, the absorption of fluids like menstrual fluids is complex because the solid and aqueous components in the fluid are absorbed differently within the absorbent structure:

> The blood absorbent enhancing agents are capable of promoting the coagulation of the dissolved and suspended solids in the blood. In this manner, the dissolved and suspended solids are to some extent separated from the aqueous components of the blood. This coagulation tends to immobilize the solid fraction of the blood and facilitate the wicking distribution of the remaining liquid

fraction. Also, by separating portions of the dissolved solids from the aqueous components, the adverse effect the dissolved components have on the ability of superabsorbent materials to absorb the aqueous portions is reduced. In addition, the mobility of the dissolved and suspended solids after being separated from the aqueous components is reduced, making them more susceptible to retention within the webs of the present invention.

Not only are the solid and aqueous components absorbed differently, but the dissolved solids have an adverse effect on the absorption of the aqueous components. Therefore, by introducing a blood absorbent enhancing agent present in a first amount adjacent the first surface of the web, and present in a second amount adjacent the second surface of the web, the blood components coagulate around the blood absorbent enhancing agent to facilitate the wicking distribution of the remaining aqueous fraction of the fluid to other areas of the web.

As further discussed in the specification at page 7, lines 4-32, there are advantages associated with having a blood absorbent enhancing agent present in a first amount adjacent the first surface of the web and present in a second amount adjacent the second surface of the web, the first amount being unequal to the second amount. As described in the passage cited below, these advantages include improved absorbency of fluids such as menstrual fluids having solid and aqueous components, as well as reduced manufacturing costs.

As described above, the blood absorbent enhancing agent may be distributed throughout the web so as to have a non-uniform distribution. The particular design of this non-uniform distribution will depend upon the ultimate end use of the absorbent structure; however, in the context of sanitary napkins, the amount of the blood absorbent enhancing agent in one embodiment is greater near a first surface of the web and less near a second surface of the web that is spaced apart from the first surface. Alternatively, the distribution of the blood absorbent enhancing agent can be just the opposite wherein the amount is less near the first surface and greater near the second surface. By providing regions within the web that have a greater amount of the blood absorbent enhancing agent, it is possible to expose the incoming blood to a given amount of the blood enhancing agent without requiring that such amount of blood absorbent enhancing agent be present uniformly throughout the web. For example, when X represents the amount of blood absorbent enhancing agent needed to modify the blood absorbent properties

of the web of cellulose fibers, such amount can be provided at a first surface, while other portions of the web can contain an amount less than X. This has several advantages including reducing the total amount of blood enhancing agent in the web which leads to reductions in manufacturing costs.

In a preferred embodiment, the amount of blood enhancing agent increases through the web in a direction away from the surface of the absorbent structure that is adjacent to the wearer's skin. In other words, the surface of the absorbent web that is adjacent to the wearer's skin includes an amount of the blood absorbent enhancing agent that is less than the amount of blood absorbent enhancing agent that is present at the opposite surface which is further removed from the wearer's skin. This particular configuration of a non-uniform distribution of the blood enhancing agent in the web promotes coagulation of the blood at a location that is further removed from the surface of the wearer's skin as compared to where coagulation would occur if the amount of the blood absorbent enhancing agent was greater near the surface of the web adjacent to the wearer's skin.

Neither Klun nor Chen contemplates the complexities of using blood absorbent enhancing agents to effectively absorb fluids containing aqueous components as well as blood components, and the Examiner has not explained any suggestion or motivation, either in the references or in the knowledge of one skilled in the art, to combine the reference teachings and arrive at the claims on appeal. As stated by the Federal Circuit, "[t]his form of hindsight reasoning, using the invention as a road map to find its prior art components, [discounts] the value of combining various existing features or principles in a new way to achieve a new result -- often the very definition of invention." Ruiz v. A. B. Chance Co., 357 F.3d 1270, 1275 (Fed. Cir. 2004).

6. Klun and Chen, Even if Combined, Fail to Teach or Suggest All of the Claim Limitations

Even if there were some motivation or suggestion to combine the teachings of Klun and Chen (which there is not), the claims on appeal are still nonobvious over Klun and Chen, either alone or in combination, because the cited references fail to teach or suggest all of the claim limitations of the claims on appeal. Klun fails to teach or suggest all of the limitations of

Claims 1 and 14 because, as the Examiner admits, Klun fails to teach or suggest blood absorbent enhancing agent present in a first amount adjacent the first surface and a second amount adjacent the second surface. Chen fails to cure the deficiencies of Klun because Chen also fails to teach or suggest a blood absorbent enhancing agent present in a first amount adjacent the first surface of the web, and present in a second amount adjacent the second surface of the web. In fact, Chen does not even suggest the addition of a blood absorbent enhancing agent to its absorbent fibrous structure. Rather, Chen merely describes a gradient in general terms for "material properties" of the absorbent fibrous structure, as described at Col. 15, lines 23-45, of Chen. Chen does not discuss the absorption of fluids containing blood components or the use of a blood absorbing material to enhance blood adsorption.

While Chen may teach a gradient in "material properties" (such as basis weight, thickness, fiber composition, pore size, wettability, and hydrophilicity), the disclosure pertains to the characteristics of the fibrous absorbent material itself, not to the amount of an additive to the absorbent fibrous structure, such as blood absorbent enhancing agent. Therefore, any hypothetical combination of Klun and Chen would merely result in a web having a antimicrobial enhancer material for antimicrobial purposes and a gradient or variation in "material properties", such as basis weight, fiber composition, pore size, or wettability.

For these reasons, Claims 1 and 14 and the claims depending therefrom are not *prima facie* obvious over Klun in view of Chen, and therefore should be allowable.

B. Rejection of Dependent Claims 4, 5, 16, and 17 Under 35 U.S.C. § 103(a)

Claims 4, 5, 16, and 17 stand rejected under 35 U.S.C. § 103(a) as purportedly being obvious over Klun in view of Chen, and further in view of U.S. Patent No. 6,013,252, issued to Terao et al. (hereinafter "Terao").

The Examiner cites Terao as purportedly teaching the application of both lactic acid and sodium lactate to an absorbent structure. However, because Terao fails to cure the deficiencies of Klun and Chen (described above), dependent Claims 4, 5, 16, and 17 are not *prima facie* obvious over Klun in view of Chen and Terao, and therefore should be allowable.

C. Rejection of Dependent Claims 10-13, 18-23, and 27 Under 35 U.S.C. § 103(a)

Claims 10-13, 18-23, and 27 stand rejected under 35 U.S.C. § 103(a) as purportedly being obvious over Klun in view of Chen, and further in view of U.S. Patent Publication No. 2003/0236511 A1, applied for by Jones et al. (hereinafter "Jones").

The Examiner cites Jones as purportedly teaching a multi-layer absorbent bandage structure. However, because Jones fails to cure the deficiencies of Klun and Chen (described above), appellants respectfully submit that dependent Claims 4, 5, 16, and 17 are not *prima facie* obvious over Klun in view of Chen and Terao, and therefore should be allowable.

D. Conclusion

In view of the foregoing remarks, Appellants submit that the Examiner has not properly rejected the claims based on the law under 35 U.S.C. § 103(a). Accordingly the rejections cannot stand and must be reversed. Therefore, Appellants respectfully request the Board to remand the application to the Examiner for allowance.

VIII. CLAIMS APPENDIX

1. (Previously presented) An absorbent structure for use in an article for absorbing blood, the absorbent structure comprising:

fibers formed into a first web, the first web having a first surface and a second surface spaced from the first surface;

blood absorbent enhancing agent within the first web, the blood absorbent enhancing agent present in a first amount adjacent the first surface and present in a second amount adjacent the second surface, the first amount being unequal to the second amount.

2. (Original) The absorbent structure of Claim 1, wherein the total amount of the blood absorbent enhancing agent within the web ranges from about 1% to about 40% based on the weight of the fibers.

3. (Original) The absorbent structure of Claim 1, wherein the blood absorbent enhancing agent is lactic acid.

4. (Original) The absorbent structure of Claim 1, wherein the blood absorbent enhancing agent comprises a mixture of lactic acid and sodium lactate.

5. (Original) The absorbent structure of Claim 1, wherein the blood absorbent enhancing agent is sodium lactate.

6. (Original) The absorbent structure of Claim 3, wherein the total amount of lactic acid in the web ranges from about 1% to about 40% based on the weight of the fibers.

7. (Original) The absorbent structure of Claim 1 further comprising a superabsorbent material.

8. (Original) The absorbent structure of Claim 1, wherein the fibers are cellulose fibers.

9. (Original) The absorbent structure of Claim 1 further comprising a second web of fibers.

10. (Original) The absorbent structure of Claim 9, wherein the fibers of the second web comprise cellulose fibers.

11. (Original) The absorbent structure of Claim 10, wherein the second web is compressed to increase its density.

12. (Original) The absorbent structure of Claim 11, wherein the first web is less dense than the second web.

13. (Original) The absorbent structure of Claim 10, wherein the second web includes superabsorbent material.

14. (Previously presented) An absorbent structure for use in an article for absorbing blood, the absorbent structure comprising:

a first web comprising fibers that are bonded together, the first web having a first density; and

a second web comprising fibers, wherein the second web has a first surface and a second surface spaced from the first surface, a blood absorbent enhancing agent present in

a first amount adjacent the first surface and present in a second amount adjacent the second surface, the first amount being unequal to the second amount.

15. (Original) The absorbent structure of Claim 14, wherein the blood absorbent enhancing agent is lactic acid.

16. (Original) The absorbent structure of Claim 14, wherein the blood absorbent enhancing agent comprises a mixture of lactic acid and sodium lactate.

17. (Original) The absorbent structure of Claim 14, wherein the blood absorbent enhancing agent is sodium lactate.

18. (Original) The absorbent structure of Claim 14, wherein the first web includes wet strength resins.

19. (Original) The absorbent structure of Claim 14, wherein the first web includes thermobondable fibers.

20. (Original) The absorbent structure of Claim 14, wherein the first web has a density ranging from about 0.03 to about 0.2 g/cm^3.

21. (Original) The absorbent structure of Claim 20, wherein the first web has a density ranging from about 0.03 to about 0.08 g/cm^3.

22. (Original) The absorbent structure of Claim 14, wherein the second web has been compressed to increase its density to a second density greater than the first density.

23. (Original) The absorbent structure of Claim 14, wherein the first web comprises cellulose fibers.

24. (Original) The absorbent structure of Claim 14, wherein the second web comprises cellulose fibers.

25. (Original) The absorbent structure of Claim 14, wherein the second web includes a superabsorbent material.

26. (Canceled).

27. (Original) The absorbent structure of Claim 21, wherein the second web has a density ranging from about 0.08 to about 0.6 g/cm^3.

IX. EVIDENCE APPENDIX

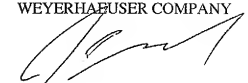
None.

X. RELATED PROCEEDINGS APPENDIX

None.

Respectfully submitted,

WEYERHAEUSER COMPANY



John M. Crawford
Registration No. 19,670
Direct Dial No. 253-924-5611